

**AMENDMENTS TO THE CLAIMS**

1. (Previously presented) A pen input/display device, comprising:  
an input pen enabling a pen input on a display panel;  
infrared transmission means and ultrasonic transmission means provided on the input pen;

infrared receive means and at least two ultrasonic reception means, provided on the display panel, receiving an infrared signal and an ultrasonic signal simultaneously transmitted respectively from the infrared transmission means and the ultrasonic transmission means provided on the input pen, when a pen tip of the input pen is in contact with the display panel;  
and

display control means computing a contact position of the pen tip on the display panel from a result, containing a time delay, of receiving the ultrasonic signal by the at least two ultrasonic reception means with reference to a time when the infrared receive means receives the infrared signal,

said input pen including pen pressure sensor means sensing pen pressure when the pen tip is in contact with the display panel; and pen pressure information infrared transmission control means controls the infrared transmission means to transmit an infrared signal which changes in accordance with the pen pressure, wherein

the input pen further includes sequence input means enabling inputs of a series of pen pressure levels in an order of frequency of use; and

the pen pressure information infrared transmission control means controls the infrared transmission means to change the infrared signal in accordance with frequency of use of individual pen pressure levels as sorted through the sequence input means.

2. (Original) The pen input/display device as set forth in claim 1, wherein the pen pressure information infrared transmission control means controls the infrared transmission means to transmit the infrared signal with varied pulse widths in accordance with the pen pressure.

3. (Previously presented) A pen input/display device, comprising:

an input pen enabling a pen input on a display panel;

infrared transmission means and ultrasonic transmission means provided on the input pen;

infrared receive means and at least two ultrasonic reception means, provided on the display panel, receiving an infrared signal and an ultrasonic signal simultaneously transmitted respectively from the infrared transmission means and the ultrasonic transmission means provided on the input pen, when a pen tip of the input pen is in contact with the display panel; and

display control means computing a contact position of the pen tip on the display panel from a result, containing a time delay, of receiving the ultrasonic signal by the at least two ultrasonic reception means with reference to a time when the infrared receive means receives the infrared signal,

said input pen including pen pressure sensor means sensing pen pressure when the pen tip is in contact with the display panel; and pen pressure information infrared transmission control means controls the infrared transmission means transmit the infrared signal which changes in accordance with the pen pressure,

wherein the pen pressure information infrared transmission control means controls the infrared transmission means to transmit the infrared signal with varied pulse widths in accordance with the pen pressure, and

wherein:

the input pen further includes sequence input means enabling inputs of a series of pen pressure levels as sorted by frequency of use; and

the pen pressure information infrared transmission control means controls the infrared transmission means to transmit the infrared signal with pulse widths which grow longer in descending sequence of frequency of use of individual pen pressure levels as sorted through the sequence input means.

4. (Original) The pen input/display device as set forth in claim 1, wherein the pen pressure information infrared transmission control means controls the infrared transmission

means to transmit at least two infrared pulses an interval between which changes in accordance with the pen pressure.

5. (Previously presented) The pen input/display device as set forth in claim 1, wherein the pen pressure information infrared transmission control means outputs multiple successive infrared signal pulses in accordance with the pen pressure.

6. (Original) The pen input/display device as set forth in claim 1, wherein the infrared signal represents bit data.

7. (Previously presented) The pen input/display device as set forth in claim 5, wherein:  
the pen pressure information infrared transmission control means controls the infrared transmission means to transmit the infrared signal over infrared signal output periods which grow longer in descending sequence of frequency of use of individual pen pressure levels as sorted through the sequence input means.

8. (Previously presented) The pen input/display device as set forth in claim 6, wherein:  
the pen pressure information infrared transmission control means controls the infrared transmission means to transmit the infrared signal over infrared signal output periods which grow longer in descending sequence of frequency of use of individual pen pressure levels as sorted through the sequence input means.

9. -12. (Canceled)

13. (Previously presented) A method of transmitting a signal from an input pen to a display device comprising the steps of:

providing a display device having an infrared receiver and an ultrasonic receiver;  
providing an input pen including an infrared transmitter for transmitting an infrared signal, an ultrasonic transmitter for transmitting an ultrasonic signal, and a pen pressure sensor

sensing pen pressure against the display and producing a pressure signal related to pen pressure against the display;

transmitting an infrared signal and an ultrasonic signal when the input pen contacts the display;

determining a location of pen contact on the display from the infrared signal and the ultrasonic signals; and

varying the infrared signal in response to a user input related to a frequency of use of pressure levels and in response to changes in pen pressure against the display;

the method further including the additional steps of:

establishing a series of pen pressure levels;

ordering the pen pressure levels based on frequency of use; and

associating each of the pen pressure levels with an infrared signal pulse width such that a more frequently used pen pressure level has a shorter pulse width than a pulse width of a less frequently used pen pressure.

14. (Canceled)

15. (Canceled)